WHAT IS CLAIMED IS:

1. A gas barrier substrate having a base material, a planarization layer formed on the base material, and a gas barrier layer comprising a deposition film formed on the planarization layer.

2. The gas barrier substrate according to claim 1, wherein the planarization layer has a cardo polymer.

3. The gas barrier substrate according to claim 1, wherein the base material is made of a heat resistant transparent resin having 80 ppm or less of coefficient of thermal expansion in the range from a room temperature to 150°C, and 85% or more of overall optical transmittance.

4. The gas barrier substrate according to claim 1, wherein the base material has a heat resistant transparent resin layer having 80 ppm or less of coefficient of thermal expansion in the range from a room temperature to 150°C and a 85% or more of overall optical transmittance on the surface.

5. The gas barrier substrate according to claim 1, wherein the average surface roughness of the planarization layer is 6 nm or less, and the maximum height difference of surface (peak to valley) is 60 nm or less.

6. The gas barrier substrate according to claim 1, wherein

the gas barrier layer is a deposition film comprising a transparent inorganic oxide film, a transparent inorganic oxide nitride film, a transparent inorganic nitride film or a transparent metal film.

7. The gas barrier substrate according to claim 1, wherein the oxygen transmission rate in the gas barrier substrate is 0.3 cc/m^2/day·atm or less and the water vapor transmission rate is 0.1 g/m^2/day or less.

8. The gas barrier substrate according to claim 1, wherein the average surface roughness of the gas barrier substrate is 6 nm or less, and the maximum height difference of surface (peak to valley) is 60 nm or less.

9. The gas barrier substrate according to claim 1, wherein a stress releasing layer for releasing the stress applied on the base material is formed on the opposite surface where the gas barrier layer and the planarization layer are formed.

10. A gas barrier substrate having a base material, a gas barrier layer comprising a deposition film formed on the base material, and a planarization layer, having a cardo polymer, formed on the gas barrier layer.

11. The gas barrier substrate according to claim 10, wherein the gas barrier layer is formed on the planarization layer.

12. The gas barrier substrate according to claim 10, wherein the base material is made of a heat resistant transparent resin having 80 ppm or less of coefficient of thermal expansion in the range from a room temperature to 150°C and 85% or more of overall optical transmittance.

13. The gas barrier substrate according to claim 10, wherein the base material has a heat resistant transparent resin layer having 80 ppm or less of coefficient of thermal expansion in the range from a room temperature to 150°C and 85% or more of overall optical transmittance on the surface.

14. The gas barrier substrate according to claim 10, wherein the average surface roughness of the planarization layer is 6 nm or less, and the maximum height difference of surface (peak to valley) is 60 nm or less.

15. The gas barrier substrate according to claim 10, wherein the gas barrier layer is a deposition film comprising a transparent inorganic oxide film, a transparent inorganic oxide nitride film, a transparent inorganic nitride film or a transparent metal film.

16. The gas barrier substrate according to claim 10, wherein the oxygen transmission rate in the gas barrier substrate is 0.3 $cc/m^2/day \cdot atm$ or less and the water vapor transmission rate is 0.1 $g/m^2/day$ or less.

17. The gas barrier substrate according to claim 10, wherein the average surface roughness of the gas barrier substrate is 6 nm or less, and the maximum height difference of surface (peak to valley) is 60 nm or less.

18. The gas barrier substrate according to claim 10, wherein a stress releasing layer for releasing the stress applied on the base material is formed on the opposite surface where the gas barrier layer and the planarization layer are formed.

19. An organic electroluminescent device substrate comprising a color conversion layer formed between the base material and the planarization layer of the gas barrier substrate according to claim 1.

20. The organic electroluminescent device substrate according to claim 19, wherein a planarization coating layer is formed on the gas barrier layer of the gas barrier substrate.

21. The organic electroluminescent device substrate according to claim 20, wherein the planarization coating layer has a cardo polymer.

22. The organic electroluminescent device substrate according to claim 20, wherein the average surface roughness of the planarization coating layer is 6 nm or less, and the

maximum height difference of surface (peak to valley) is 60 nm or less.

23. The organic electroluminescent device substrate according to claim 19, wherein the average surface roughness of the organic electroluminescent device is 6 nm or less, and the maximum height difference of surface (peak to valley) is 60 nm or less.

24. The organic electroluminescent device substrate according to claim 19, wherein the oxygen transmission rate in the organic electroluminescent device substrate is 0.3 $cc/m^2/day \cdot atm$ or less, and the water vapor transmission rate is 0.1 $g/m^2/day$ or less.

25. The organic electroluminescent device substrate according to claim 19, wherein a color filter layer is provided between the base material and the color conversion layer.

26. An organic electroluminescent device substrate comprising a color conversion layer and an overcoat layer formed in this order on the base material and being between the base material of the gas barrier substrate according to claim 10 and the gas barrier layer.

27. The organic electroluminescent device substrate according to claim 26, wherein the average surface roughness

of the organic electroluminescent device is 6 nm or less, and the maximum height difference of surface (peak to valley) is 60 nm or less.

28. The organic electroluminescent device substrate according to claim 26, wherein the oxygen transmission rate in the organic EL device substrate is 0.3 $cc/m^2/day \cdot atm$ or less, and the water vapor transmission rate is 0.1 $g/m^2/day$ or less.

29. The organic electroluminescent device substrate according to claim 26, wherein a color filter layer is provided between the base material and the color conversion layer.

30. A display substrate comprising a transparent electrode layer formed on the gas barrier substrate according to claim 1.

31. A display substrate comprising a transparent electrode layer formed on the gas barrier substrate according to claim 10.

32. An organic electroluminescent display substrate comprising a transparent electrode layer formed on the organic electroluminescent device substrate according to claim 19.

33. An organic electroluminescent display substrate comprising a transparent electrode layer formed on the organic

electroluminescent device substrate according to claim 26.

34. An organic electroluminescent device comprising the organic electroluminescent display substrate according to claim 32, an organic electroluminescent layer comprising at least a light emitting layer formed on the transparent electrode layer, and a counter electrode formed on the organic electroluminescent layer.

35. An organic electroluminescent device comprising the organic electroluminescent display substrate according to claim 33, an organic electroluminescent layer comprising at least a light emitting layer formed on the transparent electrode layer, and a counter electrode formed on the organic electroluminescent layer.